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PHOTOGRAPHIC INTERPRETATION REPORT

SSM LAUNCH FACILITIES
SHUANG-CHENG-TZU
MISSILE TEST CENTER
CHINA

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DATED FEBRUARY 1967

On page 5, Figure A-3, add: []

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On pages 6 and 7, Figures A-5 and A-6, Mission should be [] instead of []

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On page 13, Figure B-2, change caption to read: FIGURE B-2. COMPLEX B.
Early construction.

On page 18, 3d column, 2d paragraph (1st complete paragraph), 3d sentence
should read: A buried conduit or line also runs to Instrumentation Site 12.

On page 19, Figure C-1, and page 20, Figure C-3, annotation should read
Instrumentation Site 12, rather than 11.

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PHOTOGRAPHIC INTERPRETATION REPORT

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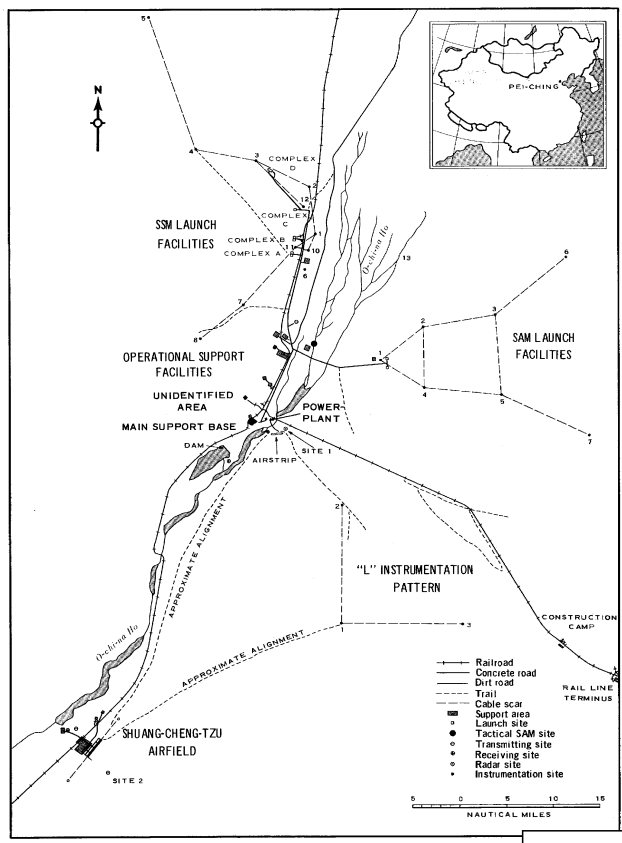


FIGURE 1. SHUANG-CHENG-TZU MISSILE TEST CENTER (SCTMTC), CHINA.

INTRODUCTION

The SCTMTC, located in northwestern China at 41-05N 100-15E, contains provisions for at least 2 and probably 3 types of missile systems from its 4 launch complexes. Launch Complexes A and D appear to be for an MRBM-type missile, while Launch Complex B was constructed for a more sophisticated system probably in the ICBM or space class. Launch Complex C was apparently designed for cruise missiles, and the purpose of the new pad, constructed during 1965-1966, is yet to be determined.

SUMMARY

This report, one of a series on the Shuang-cheng-tzu (SCTMTC), presents an analysis of the SSM launch facilities to show changes, additions, and activity since [redacted]. The user should secure NPIC Report NPIC/R-1065/64, [redacted] for a description of facilities as they existed in [redacted]. During this time frame, 1962 through 1966, additions have been made to Launch Complexes A and C, and 2 new launch facilities have been constructed: Launch Complex B and Launch Complex D.

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LAUNCH COMPLEX A

Launch Complex A, located at 41-14N 100-17E, is the southernmost of the 4 SSM launch complexes and was complete when first seen in [redacted]. It has been the most active in terms of observed equipment and exercises of the SSM launch complexes. It consists of 2 road-served R & D-type launch pads, and a checkout area located approximately 0.5 nautical miles (nm) to the rear (Figure A-1), east of the launch pads. The 2 launch pads, A-1 and A-2, south to north, are a direct, though enlarged, derivation of Launch Area 1C at the Kapustin Yar/Vladimirovka Missile Test Center in the USSR 1/ and probably also Launch Area 3C at the same missile test center.

A major modification was made to Launch Pad A-1 between [redacted] (Figure A-2). During this time an approximately 50-foot extension was added to the forward edge of pad A-1, giving a total length of approximately 275 feet; the access road to the pad was slightly enlarged and the intersection angle was rounded off; a protective bunker/revetment was relocated, as was a light pole, and 2 towers were added. Two new launch points were also constructed on the pad forward of the original launch point. The first evidence of use of either of these newer launch points was in [redacted] when burn scars indicative of a firing were present at the center launch position and a probable launch stand was at the forward position (position 3, Figure A-3). Later [redacted] revealed burn scars at both newer launch positions (positions 2 and 3, Figure D-3). No change was noted to the original launch position (position 1, Figure D-3).

During the period between [redacted]

[redacted] a revetment was added off the southwest corner of the pad adjacent to the previously relocated one. A conduit or cable was seen extending from these 2 revetments to the original launch position (position 1) on [redacted] (Figure A-4). A similar conduit or cable was seen on Launch Complex D in [redacted] extending from the launch position to the bunker/revetment off the southwest side of the pad, one of the comparisons between the 2 sites. (Others will be discussed in the section of the report on Launch Complex D.) Between [redacted] the major change noted in facilities at Launch Complex A was the enlargement of the garden plots between the pads. The launch area when last observed in [redacted] (Figures A-5 and A-6) appears to be an active facility.

The major significance of Launch Complex A in the period [redacted] through [redacted] has been in terms of observed equipment and exercises at this complex, rather than the modifications or changes to the facilities.

At the time of the observed modifications to Launch Pad A-1 [redacted] a piece of equipment, later identified as a mobile gantry crane (Figure D-4), was observed in the Launch Complex A checkout area. The identification of this piece of handling equipment, which has subsequently been seen on several occasions in the A checkout area as well as in the SSM Housing and Support Area, is another indicator of the level of activity at Launch Complex A over the past 3 years.

Table A-1 shows activity at the Launch Area and the Checkout Area, Launch Complex A, by date of photography (Figure A-7). It is interesting to note that only on one occasion, [redacted] Figure A-3), has missile equipment been observed on Launch Pad A-2. In fact, no modifications have been made to A-2 and light fix-

tures have never been added to the 4 poles around the pad.

Another firm indicator of activity, a missile launch, is revealed by the second approximately 80-foot-diameter crater at the SCTMTC rangehead. This crater is located approximately 3.5 nm downrange, due west of Launch Complex A (Figure A-8). This crater can be negated on [redacted] and was first evident on [redacted] coverage (Mission [redacted]). The first 80-foot crater appeared between [redacted] approximately 2,165 feet north of pad A-1. On 8 occasions (Table A-1), all on small-scale [redacted] missions, indications of erected missiles have been present on Launch Pad A-1. These range from 3 confirmed missiles, 2 probable, 2 possible, and 1 suspect.

Mensurations obtained on the 3 confirmed missiles give heights of 70, [redacted] \pm 10 feet. Considering that the missile is standing on a launch stand of probably [redacted] 5 feet in height the length of the missile apparently equates to the [redacted] length of the transporter-erector measured at Launch Complex D [redacted] and the Launch Complex A Checkout Area [redacted]. This compares with the approximate 1:1 ratio of the length of German A-4 (V-2) missile to its transporter-erector (Meillerwagon), [redacted] and the Soviet SS-2 missile to its transporter-erector, [redacted].

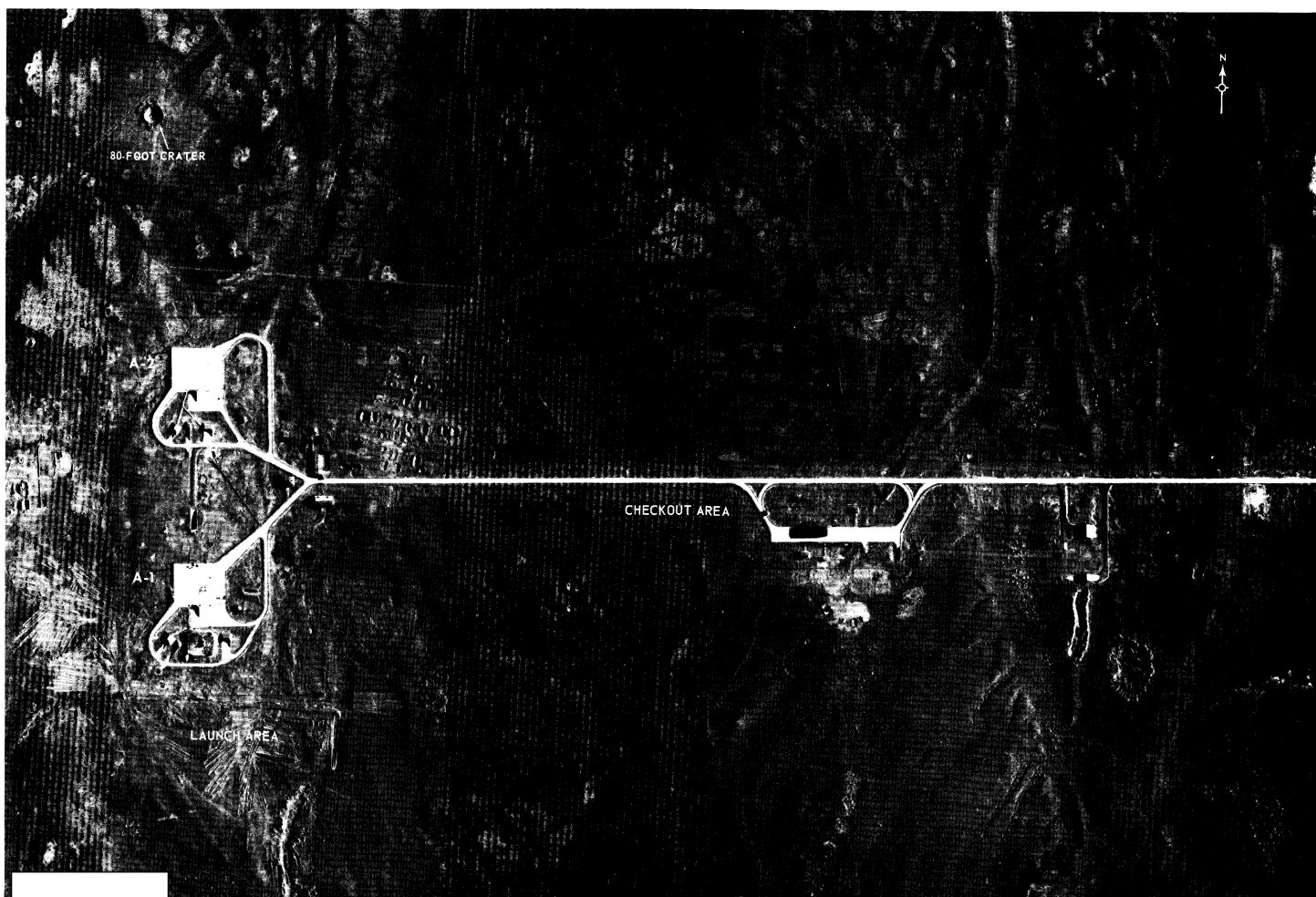
Other identifiable ground support equipment observed at Shuang-cheng-tzu, mobile gantry cranes and transporter-trailers, was used with the German A-4 (V-2) and Soviet SS-2 systems. Thus, from photography, it appears that the Chinese have been testing a missile at the SCTMTC which has the approximate length of the Soviet SS-3 missile, [redacted] but have been handling it with ground support equipment of V-2 and SS-2 technology.

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FIGURE A-1. COMPLEX A, SCTMTC.

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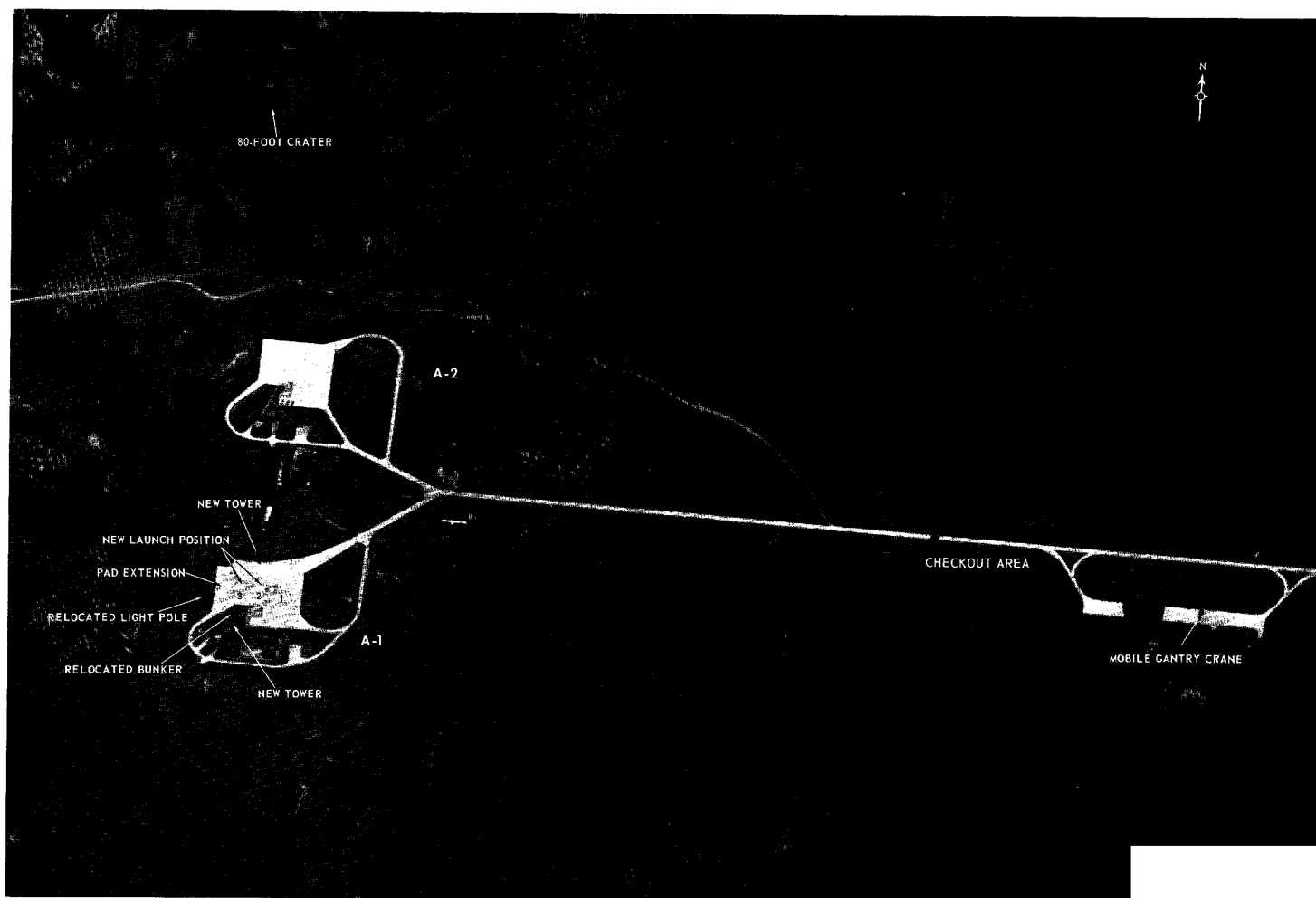


FIGURE A-2. COMPLEX A, SHOWING MAJOR MODIFICATIONS TO LAUNCH PAD A-1.

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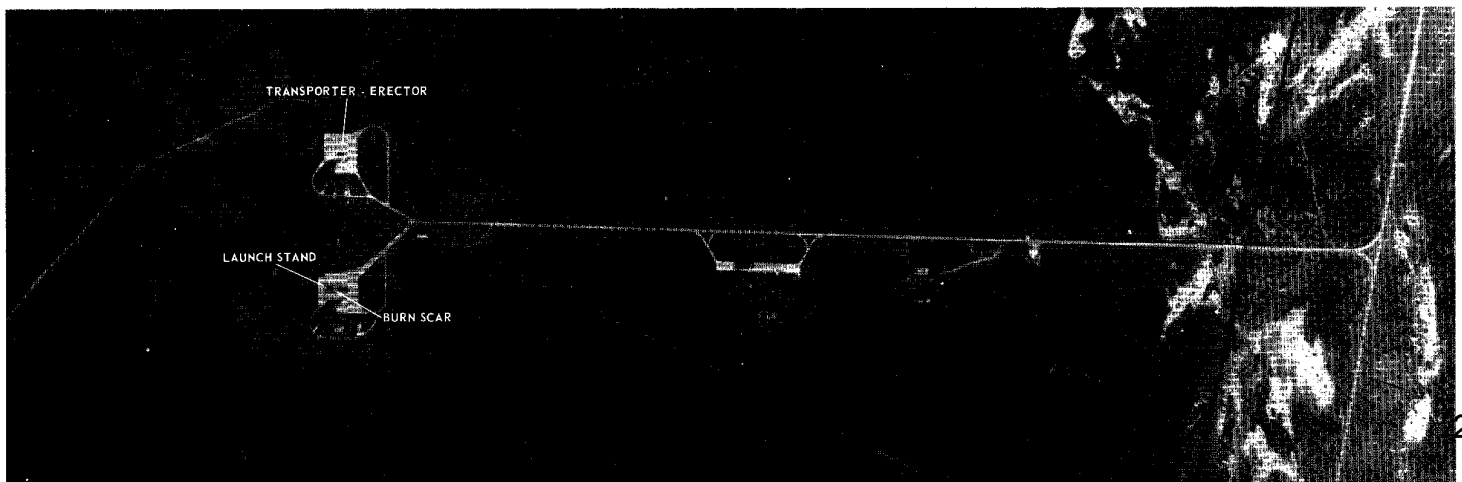


FIGURE A-3. COMPLEX A. Activity at new launch position.

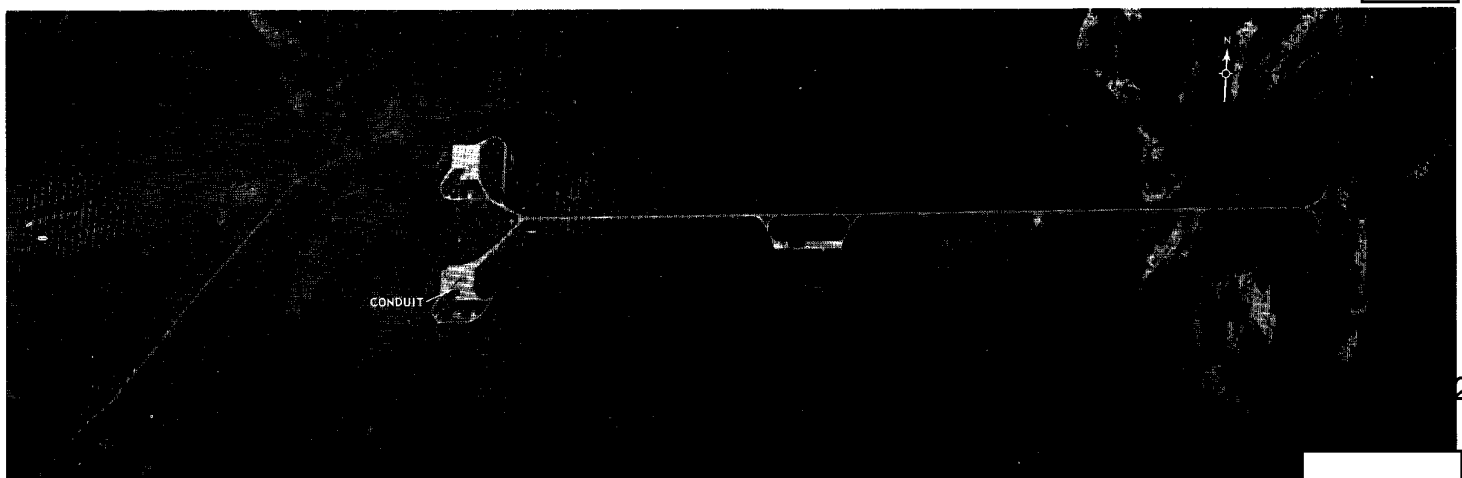


FIGURE A-4. COMPLEX A. Conduit to Position 1.

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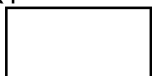
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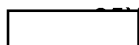
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FIGURE A-6. COMPLEX A, SHOWING PRESENT STATUS.

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[illegible]

NOTE: V/PE is abbreviation for vehicles/pieces equipment.

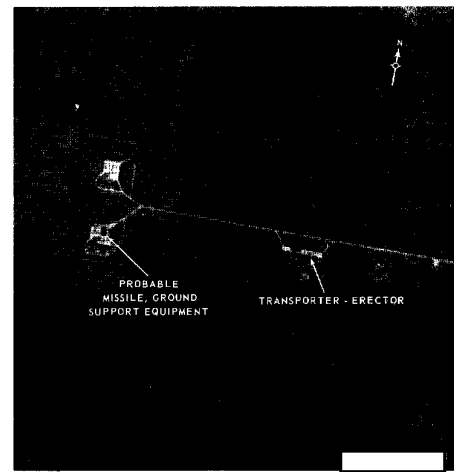
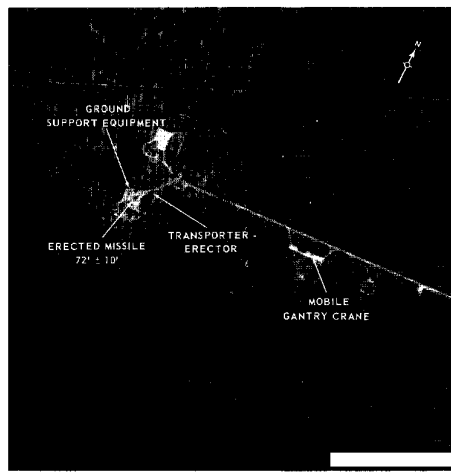
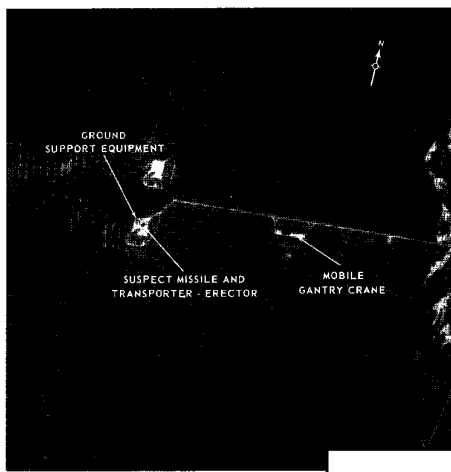
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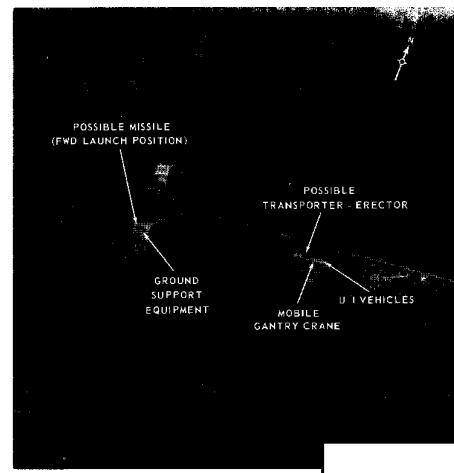
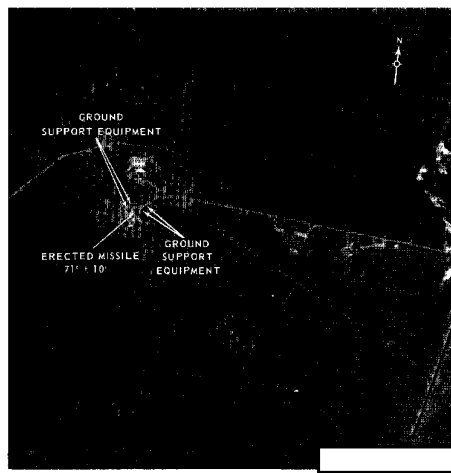
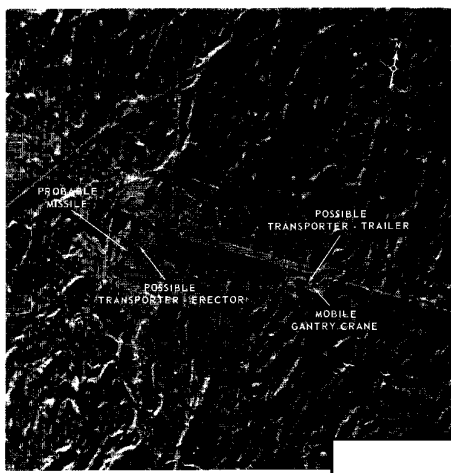
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FIGURE A-7. COMPARATIVE COVERAGES OF COMPLEX A.

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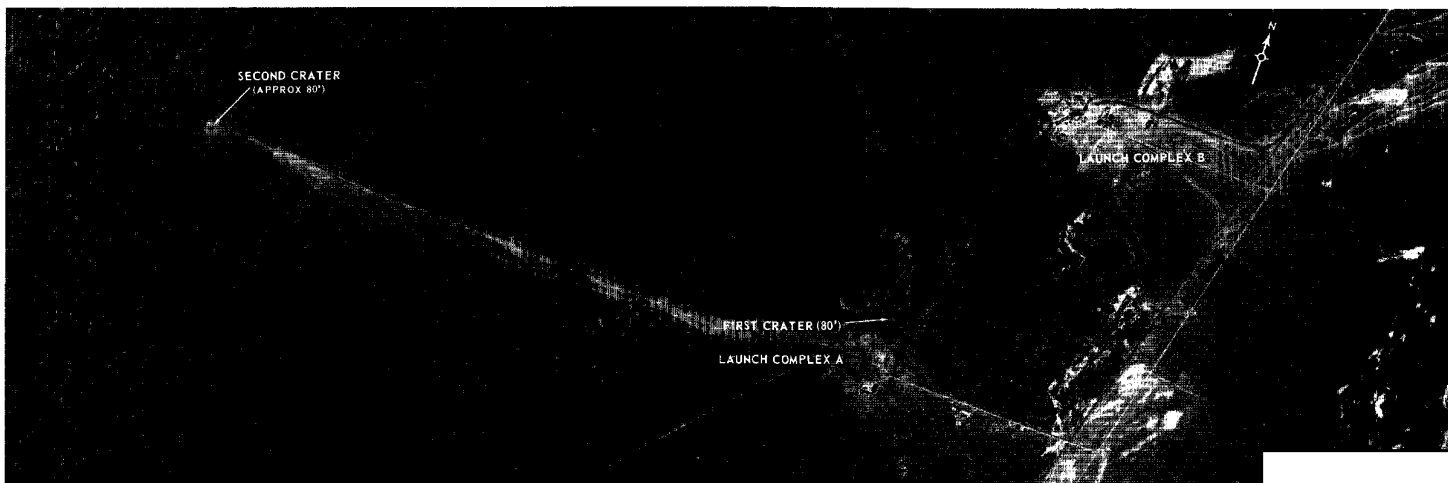


FIGURE A-8. COMPLEX A. Second crater at rangehead.

LAUNCH COMPLEX B

Located at 41-15N 100-17E, approximately 1.5 nm north of Launch Complex A, Launch Complex B is the largest launch facility in China. An R & D-type facility for large missile systems, probably in the ICBM/space category, this complex was constructed in approximately 16 months: [redacted] The complex was constructed at the site of the abandoned, incomplete remains of the original Complex B (Figure B-1) which was intended to be a duplication of Launch Complex A. [redacted] Construction, however, was terminated in an early- to mid-stage and the complex was abandoned by the time of the first photographic coverage in [redacted] The area remained inactive until [redacted] when 3 small pyramidal tents were noted in the area. The next coverage of [redacted] revealed 3 buildings under construction just north of the end of the paved road originally constructed to the launch area, and the beginning of a new rail line heading north from its previous terminus near the revetted storage areas. By [redacted] Figure B-2) the 3 buildings

were complete, 1 more was added, and at least 4 more were under construction. The next usable coverages, at the end of [redacted] Figure B-3) revealed one completed rail spur into the area, which terminated at an excavation for foundation footings. A rail-mounted tower crane was under construction on the rail spur and a second rail spur south of the first was under construction to the launch area. By [redacted] the tower crane appeared complete. On [redacted] Figure B-4) the rail-mounted tower crane, with a total height of 200 feet and boom pivot point at 160 feet, was complete, and footings for the tracks for the missile gantry were being constructed in a modular or building block concept; a concrete base or framework 120 feet long by approximately [redacted] with a center-to-center width of [redacted] with 2 center cross members parallel the end members. At this time only 2 such units were emplaced, although additional footing excavations were dug. A buildup of construction support camps and stockpiles of materials was also present. Rails had not yet been laid on the second rail spur, even though the rail bed appeared to have been finish graded almost

to the launch area.

Coverage of [redacted] reveals the first excavation, north of the tower crane, for the future control bunker.

Coverage of [redacted] Figure B-5) revealed the tower crane had been moved forward, rail cars with structural members were located just behind the crane, additional foundation footings had been poured, and excavation for the launch stand and flame deflector was taking place. By this time rails had been laid on the second spur to a point near the end of the paved road into the launch area. A further buildup was noted in construction support camps, motor pools were present, first evidence of the water storage tanks under construction was seen, 2 probable barracks-type buildings were under construction along the access road, and a general appearance of very rapid construction was noted.

On the repetitive coverage mission in [redacted] the first evidence of the gantry was noted and rail cars were observed on the second (southern) rail spur. By [redacted] Figure B-6) the gantry had reached a height of approximately [redacted]

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The first look at the footings for the probable launch platform and the flame pit were obtained and it could also be determined that the gantry rails were apart. Two facilities, the future propellant facilities, were under construction along the second rail spur. One of the water tanks had been capped and side walls were being constructed on the second. The rail line serving Launch Complex B, which had terminated just north of the access road to B, showed signs of further extension. The buildup of a construction camp was noted east of the Launch Complex C access road and rail bed construction was noted to the north. On the last usable coverage, index camera photography, this rail line had progressed to a point approximately 25 nm north of Launch Complex C, and additional indications of extension were noted heading toward a probable agricultural commune, border outpost, and weather station approximately 50 nm north-northeast of the center.

The next evidence of additional construction was on coverage of when the gantry appeared complete and the control bunker had been capped. The tower crane was apparently dismantled by this time. These items were verified on the of At this time the gantry (Figure B-7) measured approximately 195 feet high, feet wide at the top, wide at the base. The open working space was approximately 140 feet in height, with a width of 25 feet. Earth had been piled around the control bunker, the 2 water storage tanks had both been capped, concrete was being laid on the pad approach and surface, a loop road system was being constructed from the second rail spur to the launch pad, and open ditches extended from 2 facilities under construction later identified as propellant handling and storage facilities, near the second rail spur to a point near the launch position which was

under construction. The concrete sidewalls of the flame pit extending from the launch position were probably curing, as a light covering, such as canvas, was over the pit, and earth had not been backfilled against the sidewalls.

The next coverage of showed that the gantry had been moved forward (possibly to concrete surface the transfer point) and back on the transfer point on coverage. The covering was removed from the top of the flame pit and earth had been backfilled against the pit sidewalls. The first evidence of construction clean-up was also noted on this mission with the removal of some of the construction camp tents from the area.

Monoscopic imagery of poor interpretability on although severely limiting readout, did reveal that the launch complex was apparently complete. Concrete had been poured on the gantry stand, the launch pad, and the pad approaches. The earth around the control bunker north of the pad had been smoothed off, the water storage tanks were complete and earth mounded; on the loop road system, the access roads between the second rail spur and the launch pad appeared complete and hard surfaced, the trenches from the 2 propellant handling and storage facilities within the loop roads at the second rail spur to a point near the launch position were backfilled, and the visible portions of the launch area presented a generally "cleaned-up" appearance.

The gantry had been rolled forward approximately one-half the distance to the launch position, and an unidentified object approximately 70 feet long was on the rear of the launch pad between the gantry rails. The status of construction of the actual launch point was undetermined. Photographic coverage of (Figure B-8) included the entire complex and confirmed its completeness. Mensuration was made of the majority of the facilities,

resulting in one major difference. The total height of the gantry has been scaled down to feet. It is felt that this measurement is more accurate than the 195-foot height obtained on photography (Mission Measurements obtained from coverage are expressed in Figure B-8 and Table B-1. On this coverage the gantry was forward over the launch position, concealing its completed appearance, and an empty missile transporter approximately 60 feet long was on the rear of the launch pad between the gantry rails in the same position as the approximately 70-foot object was located on Not shown on Figure B-8 are 2 permanent-type administration-barracks buildings that are flat roofed, single story and measure 130 At least 10 small vehicles were parked in front of the larger building on coverage and a crane is on the road in front of this same building. Operation at this complex would appear from photography to have the missile brought into the gantry by standard gauge (Chinese) rail line. The missile will then be raised into the gantry in an erected position, probably by the crane mechanism on the rear of the gantry and then transported approximately 625 feet by the gantry to the launch position where fueling will take place. The presence of the 2 larger diameter water storage tanks and the much larger pumphouse indicate that a "wet down" system will probably be employed during live firings.

If alignment and azimuth of the launch facility have any direct bearing on launch azimuth, the azimuth derived from the layout of the facility is degrees. This azimuth, if extended from the launch point, would extend into the Indian Ocean after crossing over China and India. The range to the Indian Ocean would exceed 2,400 nm.

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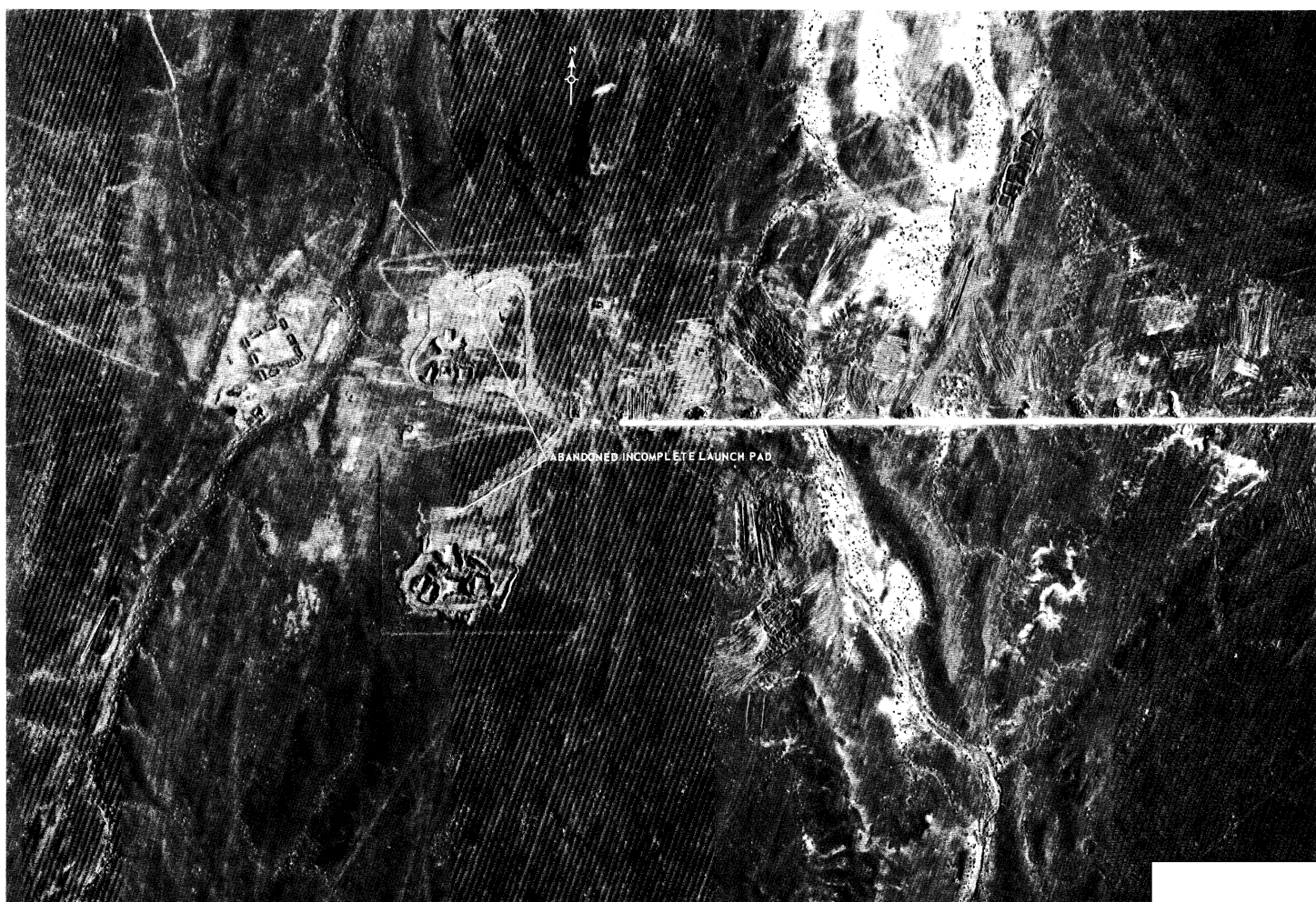


FIGURE B-1. COMPLEX B, SCTMTC.

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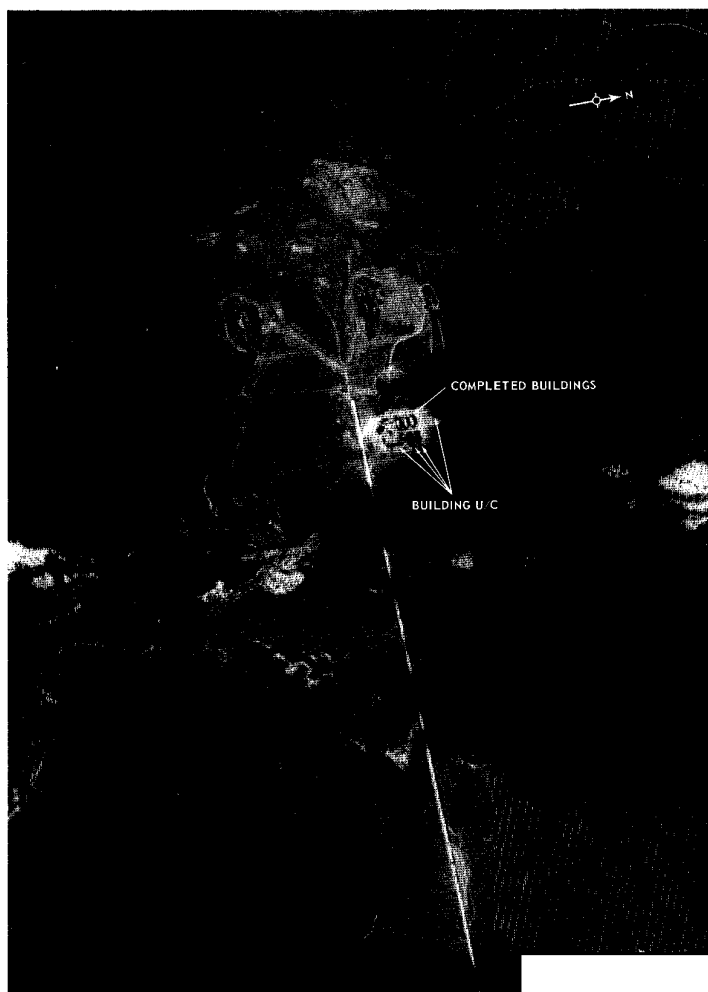


FIGURE B-2. COMPLEX B. Construction stages shown.

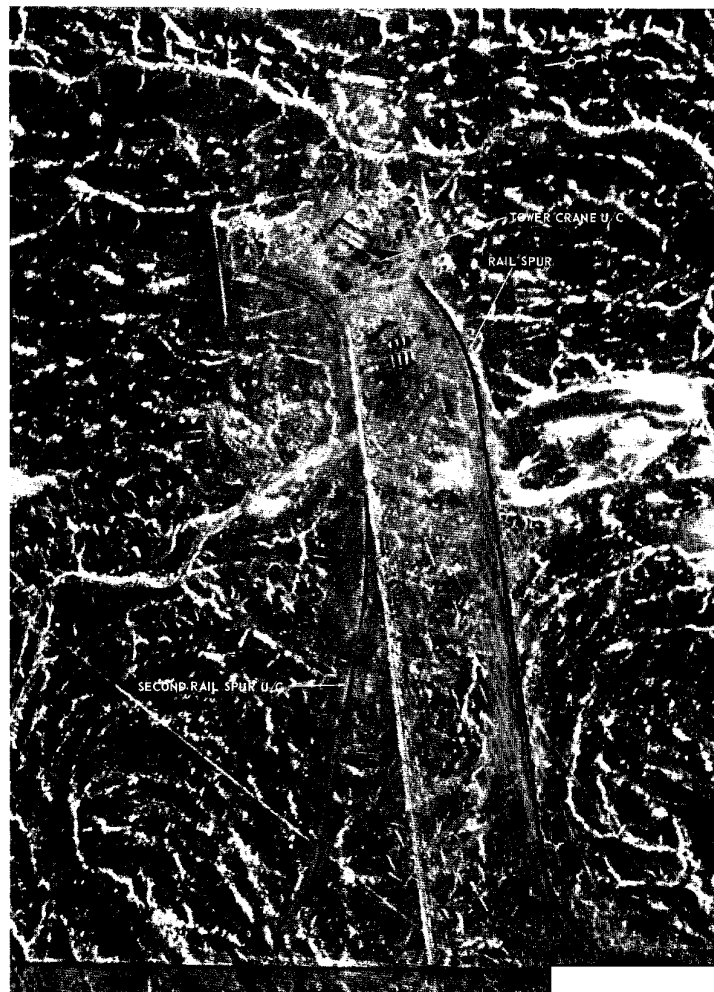


FIGURE B-3. COMPLEX B. Rail spur completed into area.

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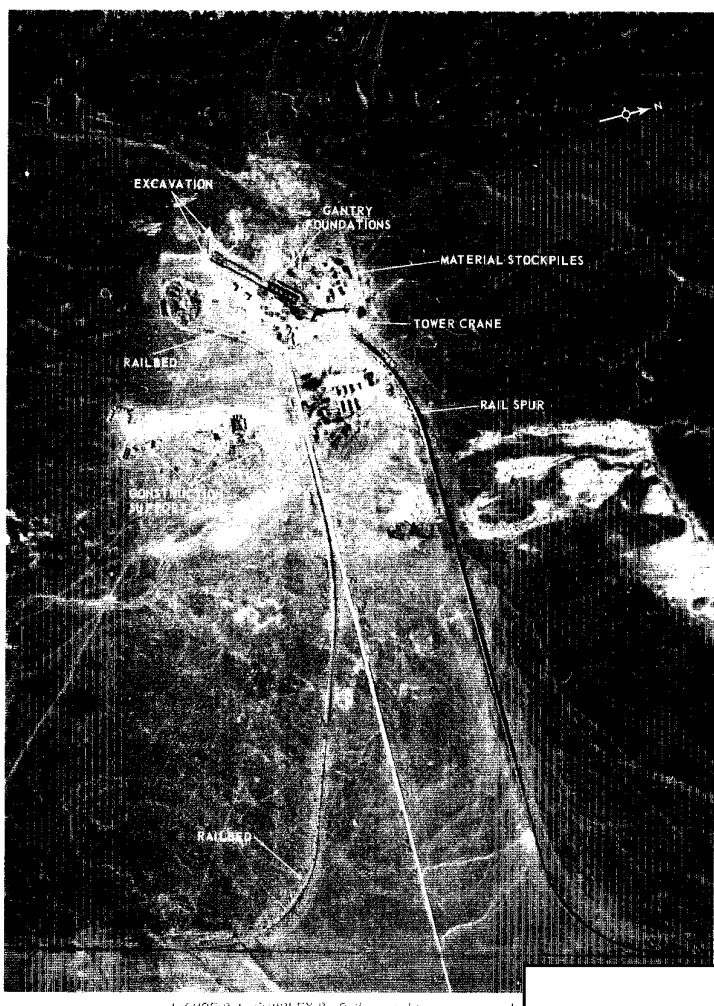


FIGURE B-4. COMPLEX B. Rail-mounted tower crane complex.



FIGURE B-5. COMPLEX B. Appearance of flame pit excavation.

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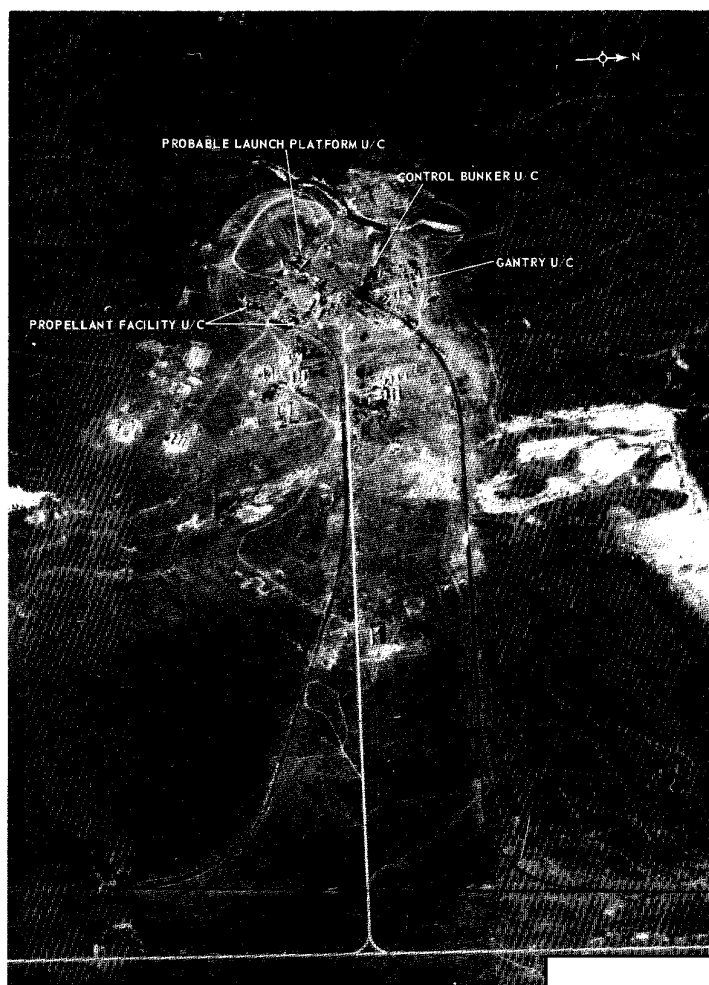


FIGURE B-6. COMPLEX B. Gantry under construction.

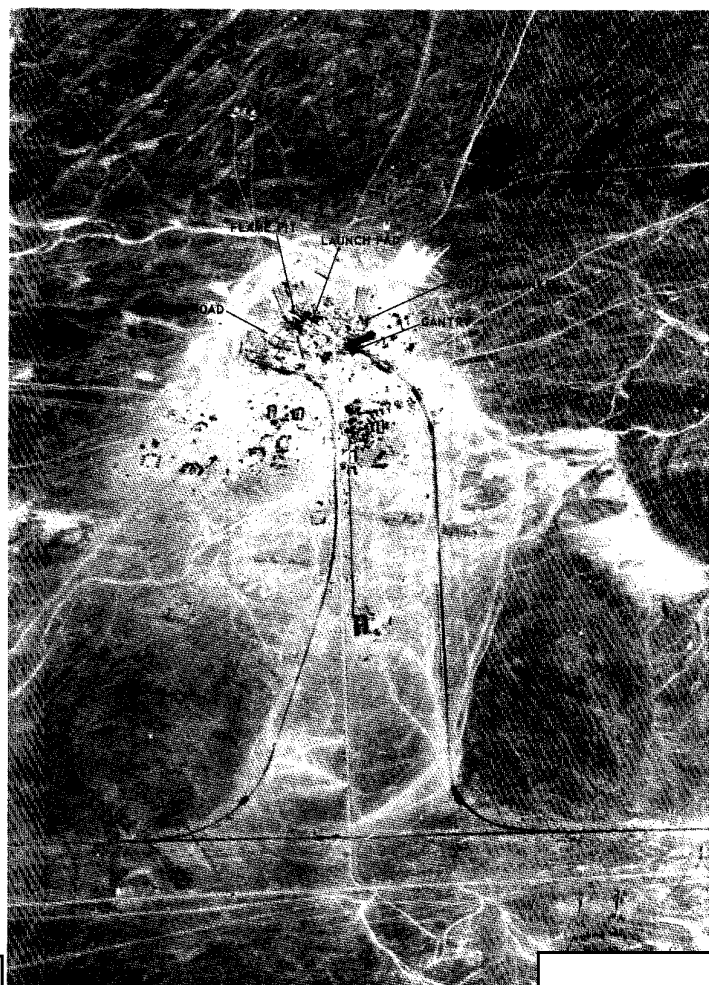


FIGURE B-7. COMPLEX B. Gantry completed.

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Table B-1. Launch Complex B. (Keyed to Figure B-8)

Item	Description	Size	Remarks	Item	Description	Size	Remarks
1	Gantry	high 70' x 30'	across, 40' width of each leg	12	Bunker	Total length	This bunker is most similar to Item 6. There is also a side entry and the road widens at this point.
	Top				Main section		
	Base				Entryway	Width 15'	
	Open space	25' wide		12a	Electric power sub station		Terminus of power line into the area.
	Travel mechanism		Possible cab on forward portions	13	Flat-roofed structure	Length 40'	
	Travel distance	725' max	625' center to center	13a	U/I facility		
2	Launch pad	Length 175' Width	Length taken to center line of the gantry which obscures forward edge of pad. Gantry rail separation	14	Possible platform		A flat-topped conical structure or bunker.
3	Flame pit	30' wide At least 70' long (unknown depth)	Gantry obscures rear portion of flame pit	15	Bunker		See also Items 7, 9, 10
					Entryway	Length 20'	
4	Transfer point			15a	Possible electric power substation		Probably used during construction phase.
	Rail overlap		Gantry and standard gauge rails	16	Flat-roofed building		Single story with 2 wings
5	Control bunker		Concrete cap		Main section	Length 40'	
		(max)	Outer edge of bunkered earth		Wing		
5a	U/I facility				Wing		
6	Bunker	Length 70'		17	Gable-roofed pumphouse	Length 60'	There may be some earth bunkering on the side of the building facing the launch position.
	Entryway						
7	Bunker	Width 20'	One of 4 similar type bunkers (Items 7, 9, 10, 15)	18 & 19	Earth-bunkered water-storage tanks	(max)	These may be supplied from a water tower along the access road with a top tank diam of and a height of 50 feet.
	Entry						
7a	U/I facility			20	Propellant facility		Also at this facility is a stack approximately 50' tall, a small above-ground tank, and a possible entryway.
8	Purge sump		A typical purge sump partitioned into 2 equal sections. The foundations for a possible pump/filter station are located approx. 1/2 the way to the launch position.	21	Earth-bunkered dome		This may be a portion of Item 20.
	Individual	80'		22	Propellant facility		Also at this facility is a stack approximately 50' tall, a small above-ground tank, and a possible entryway. An underground line connects this facility with the sump, Item 23.
9	Bunker	Width 15'	See also Items 7, 10, 15		Earth-bunkered		
10	Bunker	Length 25'	See also Items 7, 9, 15				
10a	U/I facility	No measurement		23	Sump		A typical 2-partitioned sump.
11	Gable-roofed building	Length 40'	This building is protected on 3 sides by an earthen embankment.				
	Flat-roofed section						

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FIGURE B-8. COMPLEX B. Construction complete.

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LAUNCH COMPLEX C

Launch Complete C (Figure C-1) located at 41-18N 100-17E, was the northernmost of the 3 original launch complexes. Apparently constructed for cruise missiles, 1/ it was complete when first observed in [REDACTED]. Major addition and modification took place between [REDACTED] the same time period as the construction of Launch Complex B. A new pad approximately 150 by 75 feet was constructed approximately 325 feet north of the original launch pad and a probable service tower approximately 65 feet high was constructed on the pad. This new pad has an approximate azimuth of [REDACTED] along its long axis. At the same time, support facilities within the launch area were augmented by the addition of barracks-type buildings, heat plant, water supply facilities, and garden plots.

Prior to this an addition had been made to the south-east corner of the original pad. This addition, measuring 50 by 20 feet (Figure C-2), was apparently complete by [REDACTED] and can be negated on coverage. One of the 4 light poles, the one in front of the new addition, was removed at the same time. The purpose of this addition has not been explained but it does not appear to have any connection with the major modification begun in 1965. The first evidence of construction for the major modification was observed on [REDACTED] coverage when a foundation for a new support building and ground scarring were present. This is the same date that the first activity at Complex B was noted. [REDACTED] coverage the building was completed and additional scarring was noted in the area. By [REDACTED] at least 10 tents were noted in the support section of the launch area and some scarring was noted at the future pad location. [REDACTED] 4 trucks were on or near the old launch pad and a new irrigation ditch was visible in the support area in addition to 1 new probable pumphouse and at least 11 personnel tents. By

[REDACTED] the first evidence of agricultural activity was noted in the support portion along the irrigation ditch. Coverage of [REDACTED] revealed the first evidence of construction activity at the new pad site. The repetitive coverage mission [REDACTED] revealed additional construction activity at the location of the new pad. On [REDACTED] the forward portion of the pad had been concrete surfaced and the access road from the original pad was being surfaced. By [REDACTED] the access road had been completed, and a new concrete apron approximately 80 feet long had been added on the southern side of the loop access road serving the original pad; an approximately 50-foot tower was located on this apron. Coverage of [REDACTED] revealed the remainder of the pad under construction (Figure C-3), 3 new buildings were under construction and the foundation for a fourth was visible. At least 12 tents were in the area. At this time measurements of 150 by 75 feet were obtained of the pad, and approximately 65 by 20 feet on the tongue projecting to the east. A circular ring with an inner diameter of 20 feet and an outer diameter of [REDACTED] was positioned approximately 120 feet from the forward edge of the pad, and concrete surfacing was taking place on the remainder of the pad. A small, flat-roofed, unrevetted structure was also present next to the newer pad on this coverage. Three probable light poles were also present at the new pad. The small scale of the [REDACTED] coverage precluded a detailed analysis but it could be seen that construction was continuing on the buildings and a possible crane was located adjacent to the circular pattern on the new pad. On [REDACTED] photography an unidentified object is positioned over the circular pattern and at least 2 unidentified pieces of equipment are on the newer pad. At least 4 vehicles are near the original control bunker. Two towers or masts are on the new apron on the loop access road. Tents were still present in the support area.

The photography of [REDACTED] revealed a probable service tower approximately 65 feet high

within the circular ring on the newer pad. This appeared to be of steel girder construction with heavier members or construction at the base and some type of mechanism at the southwest quadrant of the circular ring. This heavier framework extends upward approximately 40 feet on 3 sides but apparently does not extend on the forward side. At least 4 vehicles/pieces of equipment were also located on the pad. There were still 12 tents in the area. The 3 large buildings previously observed under construction could be seen to be barracks type and were complete. [REDACTED] the launch area was less active; 3 tents remained on [REDACTED] and only 1 was left by [REDACTED].

Coverage of [REDACTED] Figure C-4) revealed the area as probably completed. A trench from the small structure next to the new pad to the hip-roofed 60- by 40-foot building, which was one of the original support buildings, was observed. A buried conduit or line also runs to Instrumentation Site 11.

[REDACTED] Figure C-5) the new pad at Launch Complex C appeared complete, although no security fence had been constructed. The probable service tower had not changed from its appearance on [REDACTED] and the only noticeable difference in the support area was in the completion of all buildings present and the removal of all tents. No security gate or fence across the complex road was present.

No changes or modifications to the C Checkout Area were noted, although tents and small vehicles were observed on several occasions.

It can be noted that the access to Launch Complex D branches off the road to C just prior to entering the C Launch Area. This would allow the C Checkout Area to be utilized for missiles tested at D if desired. At present, no function can be ascribed to Launch Complex C. The new pad at C, while having a probable service tower and the general appearance of a launch pad, does not have the usual "across pad" access or earth-mounded control bunker.

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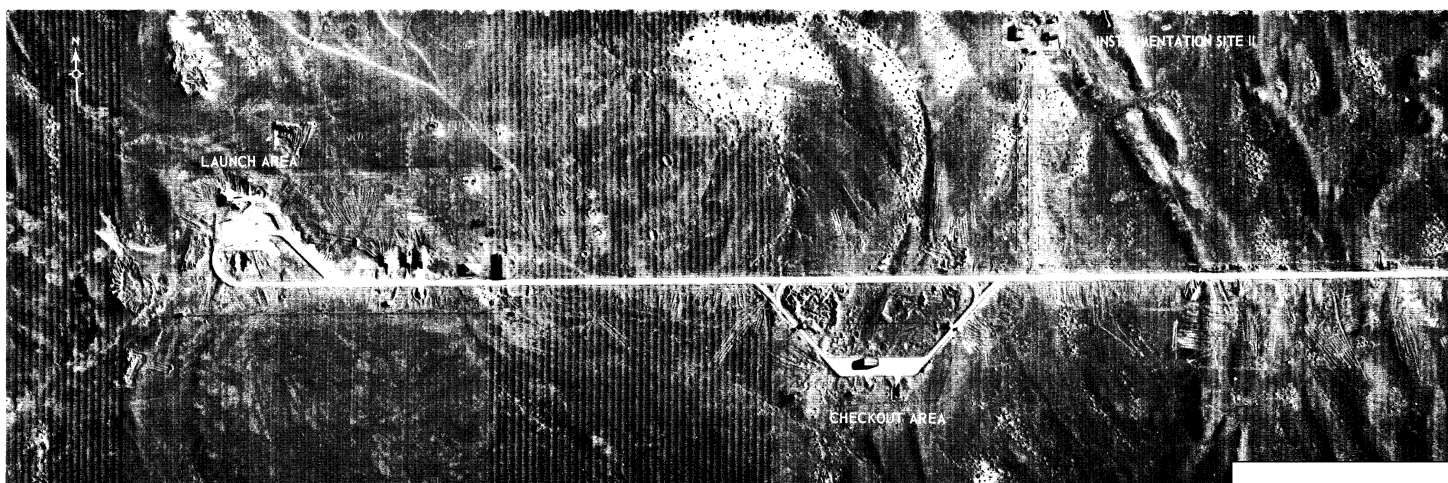


FIGURE C-1. COMPLEX C, SCTMTC.



FIGURE C-2. COMPLEX C. Addition to original pod.

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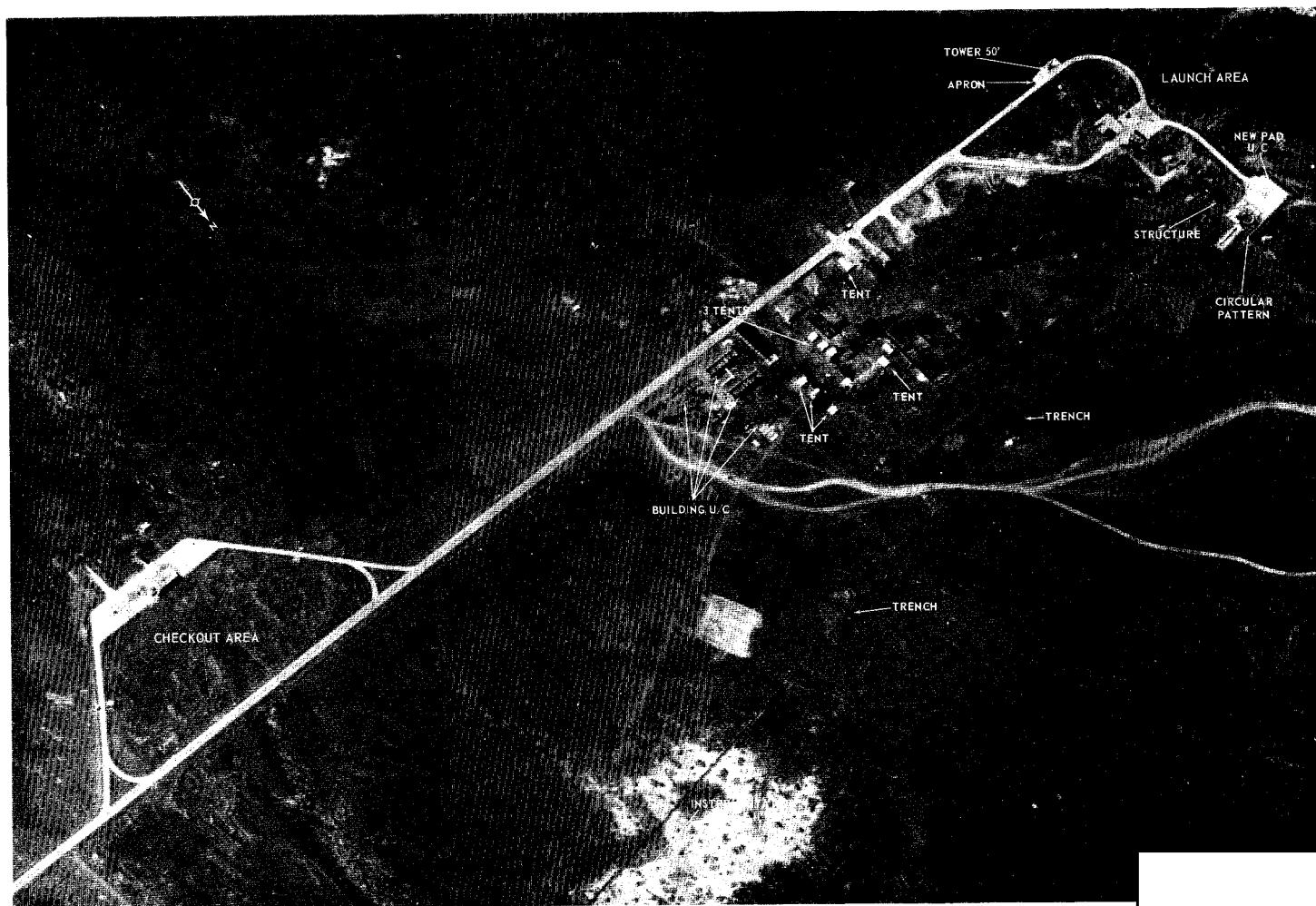


FIGURE C-3. COMPLEX C. New pattern of construction.

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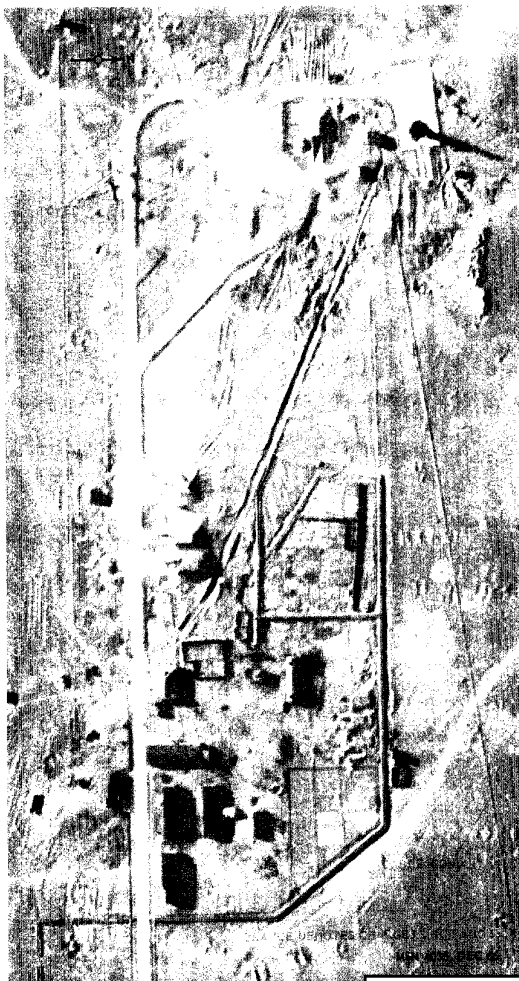


FIGURE C-4. COMPLEX C. Construction since



FIGURE C-5. COMPLEX C. Showing present status.

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LAUNCH COMPLEX D

Launch Complex D, the most recent of the 4 SSM launch complexes at Shuang-cheng-tzu, is located approximately 4 nm north-northwest of Launch Complex C at 41-22N 100-15E. The complex (Figure D-1) consists of a single road-served launch position, a loop road pattern, a control bunker, protective revetments, an electric power substation, and a [] structure, and is apparently a "field" or stripped version of the launch pads at Complex A. The road patterns and launch pad do not appear to be constructed of concrete but rather of compacted/treated earth, although a portion in the center of the pad has a different tone, possibly signifying a different material. The complex was constructed rapidly, possibly in less than 3 months. Complete negation can be made on [] photography

[] the access road to the general area of the complex was apparent. Coverage of [] revealed several construction support structures and earth scarring in the area. By [] the complex may have been complete, with the launch pad and loop road pattern visible. The larger scale of [] confirmed the complex and revealed the launch position, control bunker, auxiliary facilities, as well as equipment and activity. At this time [] the pad had already been utilized as a launch facility as evidenced by the burn scars visible on the pad. These burn scars are apparently identical with burn scars observed at the 2 newer launch positions (2 and 3) on Launch Pad A-1, as observed on [] photo coverage []

Other components which can be compared to Launch Complex A include the bunkers/revetments off the edge of the pad at D which can be equated to the 2 revetments off Launch Pad A-1, and the conduit, previously discussed in Launch Complex A, from the launch position to one of these bunkers/revetments.

The probable loading access through the launch pad at Launch Complex D is on an azimuth of approximately 235 degrees, which equates to the approximately 230-degree loading azimuths of Launch Complex A.

Equipment and activity observed at Launch Complex D on [] photographic coverage included a transporter-erector which measured [] This piece of equipment has the same configuration as the transporter-erector utilized with the German A-4 (V-2) system (Figure D-3) and the Soviet SS-2 system, although it is approximately 20 feet longer than ones utilized with the A-4 (V-2) system and 10 feet longer than the one used with the SS-2 system as observed at the Kapustin Yar/Vladimirovka Missile Test Center in 1959. 2/ Two mobile service cranes, which were also common to the German A-4 (V-2) (Figure D-4) and Soviet SS-2 systems were also observed, one in an erected position and one in a lowered traveling mode. These cranes were utilized by the Germans for transferring the missile from the transporter-trailer (Vidalgwagon) to the transporter-erector (Meillerwagon). They are also probably capable of being used for warhead mating. An empty transporter-trailer approximately [] long was also observed parked along the road leading to the launch area. These transporter-erectors have also been identified in Launch Complex A on both launch pads, in the checkout area (Figure D-5) and in the SSM Housing and Support Area motor pool. The mobile gantry cranes have been identified on numerous occasions in the Launch Complex A Checkout Area (Figure D-5) and the transporter-trailers have been identified in SSM Housing and Support Area, and the SSM section of the SSM-SAM Assembly and Checkout Area.

Table D-1 gives comparative mensuration of the equipment observed at Launch Complexes D, A, the SSM Housing and Support Area, the Assembly and Checkout Area, the SS-2 equipment observed at the Kapustin Yar/Vladimirovka Missile Test Center, and the German A-4 (V-2) equipment. A row of 21 small probable monitoring devices was positioned just north of the launch position. At least 4 more objects, all under 10 feet square, may have been utilized

as possible monitoring devices.

The control bunker which is approximately 530 feet from the launch position has an approximately [] unidentified object on top, probably also used for observing missile launchings. If a launch complex at SCTMC were to be selected as the most likely candidate for the launch point of China's reported missile-delivered nuclear test (CHIC 4) [] Launch Complex D would be chosen for the following reasons:

1. The extremely rapid rate of construction []
2. The lack of permanent concrete roads.
3. The lack of good access from the support facilities.
4. The placement of the complex forward of the "firing line" of the other SSM launch complexes, and separation distance of 4 nm from the nearest launch facility, Launch Complex C.
5. The absence of security fencing.
6. The amount of equipment and probable monitoring devices within the complex prior to the test.
7. The absence of equipment, probable monitoring devices, and structures on coverages subsequent to the event.

Table D-1. Comparative Measurements of Equipment at SCTMTC and KY/Vlad MTC. (Dimensions in feet)

	Transporter-Erector	Mobile Gantry Crane	Transporter-Trailer	Missile
SCTMTC Launch Complex A				
SCTMTC Launch Complex D				
SCTMTC SSM Housing & Support Area				
SCTMTC SSM Assembly & Checkout Area				
KY/Vlad MTC Launch Complex G (SS-2)				
German A-4 (V-2)				

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FIGURE D-1. COMPLEX D, SCTMTC.

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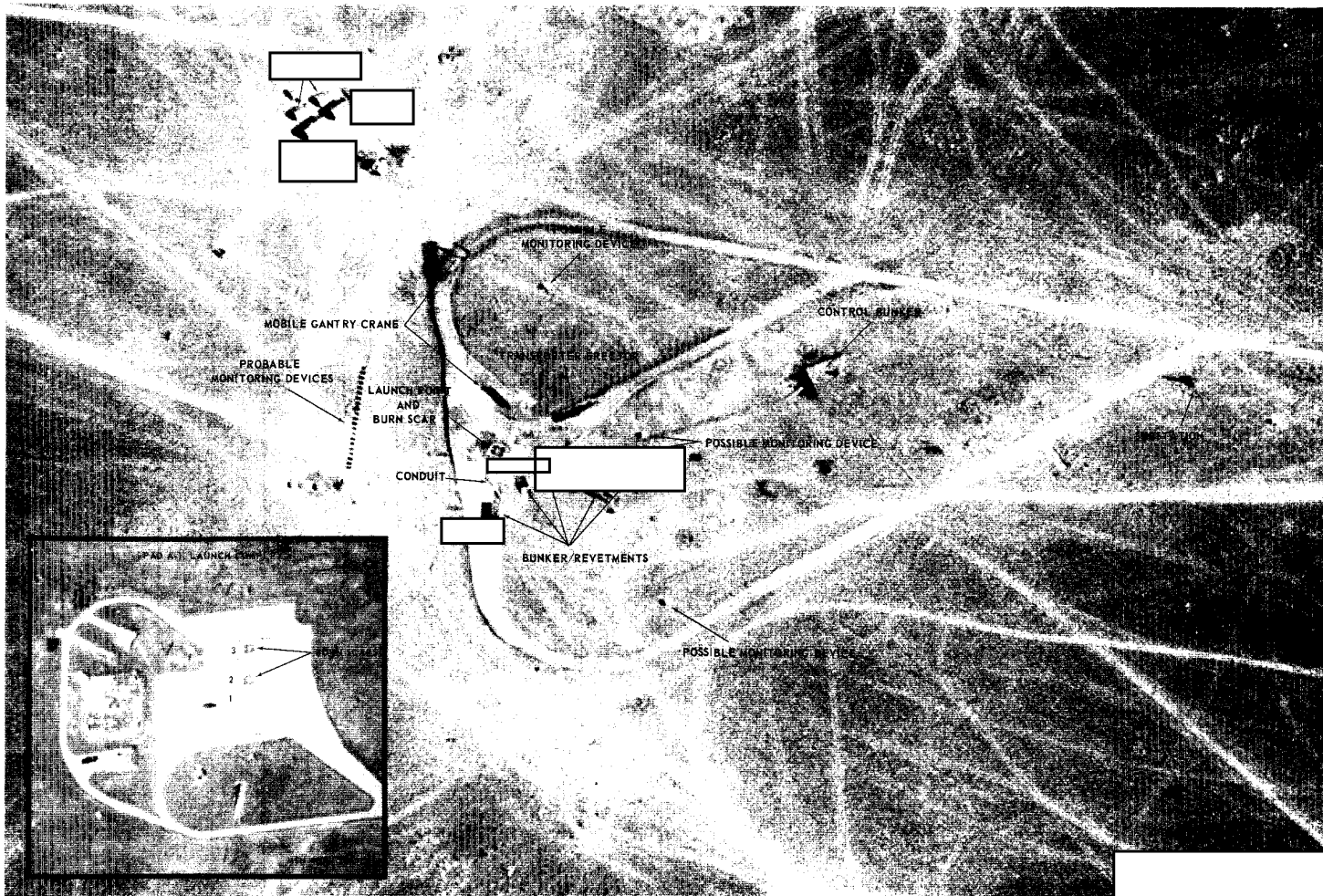


FIGURE D-2. ACTIVITY AT COMPLEX D. Insert shows Pad A-1.

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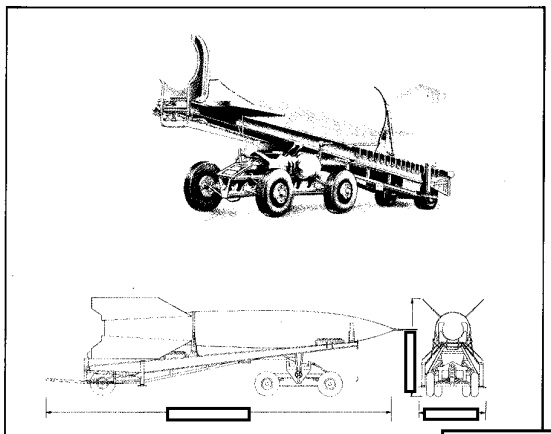


FIGURE D-3. TRANSPORTER-ERECTOR. SS-2 measurements superimposed on drawing of German V-2.

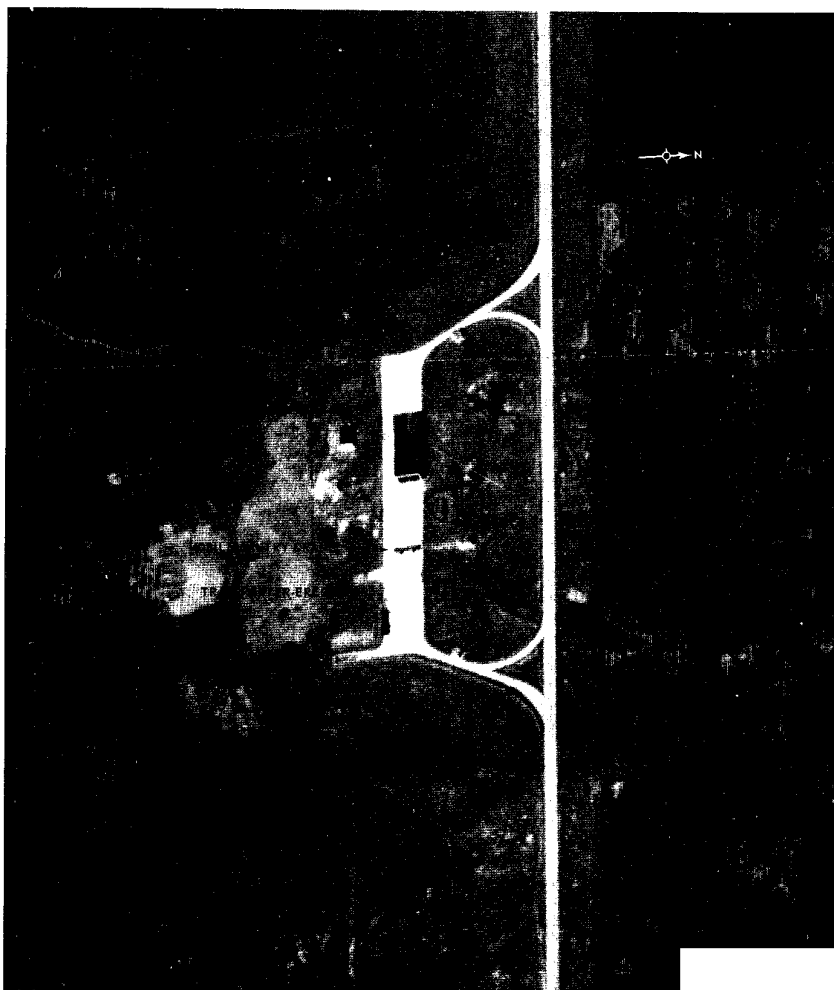


FIGURE D-5. TRANSPORTER-ERECTOR AND MOBILE GANTRY CRANE AT CHECKOUT AREA

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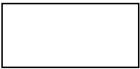
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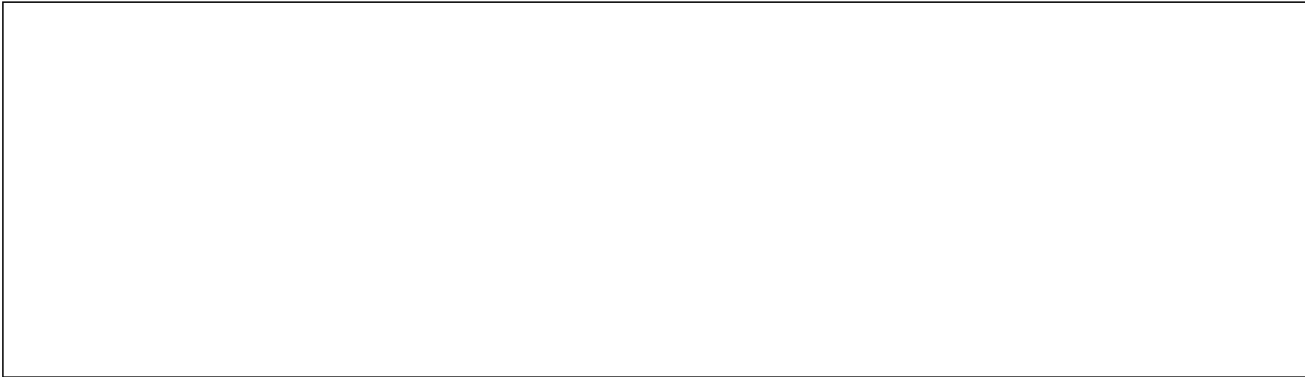
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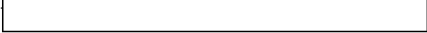
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2. CIA. PIC/JR-1006/61, *Launch Complex "G" Surface-to-Surface Missile Facilities Kanustin Yar/Vladimirovka Missile Test Center, USSR*, Mar 61 (SECRET

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REQUIREMENT

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NPIC PROJECT

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